

GEOGRAPHIC SCHOOL BULLETINS

Published Weekly by

THE NATIONAL GEOGRAPHIC SOCIETY

(The National Geographic Society is a scientific and educational Society, wholly altruistic, incorporated as a non-commercial institution for the increase of geographic knowledge and its popular diffusion. General Headquarters, Washington, D. C.)

Contents for Week of March 23, 1942. Vol. XXI. No. 5.

1. Burma of the Peacocks, India's Eastern Flank
 2. The Priorities That Geography Built
 3. Belgian Congo Riches on United Nations' Side
 4. French Islands of the Pacific
 5. Geo-Graphic Brevities
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Herbert G. Ponting

BURMA ONCE MEANT TEMPLE BELLS AND BUDDHAS, NOW OIL AND TUNGSTEN

Kipling introduced Burma to the English-speaking world as a land of bloomin' idols "made o' mud, wot they call the Great Gawd Bud," and "tinkly temple bells." Travelers described the 5,000 temples of Pagān, the Shwe Dagon Pagoda with its 42-ton bell and its golden tip inlaid with diamonds, and the cave temples crowded with Buddhas of all sizes, like the Paingū Caves near Moulmein (above). But modern warfare has emphasized Burma's value as a source of petroleum and wolfram, the ore of tungsten (Bulletin No. 1).

HOW TEACHERS MAY OBTAIN THE BULLETINS

The Geographic School Bulletins are published weekly throughout the school year (thirty issues) and will be mailed to teachers in the United States and its possessions for one year upon receipt of 25 cents (stamps or money order); in Canada, 50 cents. Entered as second-class matter, Jan. 27, 1922, Post Office, Washington, D. C., under act of March 3, 1879. Acceptance for mailing at special rate of postage provided for in section 1103, Act of Oct. 3, 1917, authorized Feb. 9, 1922. Copyright, 1942, by National Geographic Society, Washington, D. C. International copyright secured. All rights reserved. Quedan reservados todos los derechos.

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Burma of the Peacocks, India's Eastern Flank

THE road to Mandalay became just one more Japanese invasion route, as the Nipponese pushed into Burma.

The threat of war had already blotted out the quiet Asiatic lotus land that Kipling knew, with its playful flying fishes, river steamers "chunking" lazily up the Irrawaddy, and Buddhas made of mud (illustration, cover). As the British front line in Asia dropped back, Burma increased in importance because of the Burma Road to China and the unfortified Burma frontier shared with India.

From Rangoon, the country's capital, to the inland cities of Mandalay and Lashio, and from there into China's Yunnan Province and on to Chungking, the Burma Road has for more than a year carried a purposeful traffic of American war materials in American trucks over a hand-hewn mountain highway that was China's chief supply route.

Five Mountain Ranges Scratch Rain from Clouds

In addition to cutting the Burma Road, Japan's invasion of Burma has thundered at the gates of India, most populous unit in the British Empire. From 1886, when British authorities annexed the bloodstained realm of King Thebaw and Queen Supyalat, until 1937, Burma was India's largest province, hitched to the vast sub-continent colony at the head of the Bay of Bengal by the adjoining province of Assam. In April, 1937, Burma was made a British Crown Colony.

Stretching some 1,200 miles from the mountainous India-Tibet frontier in the north to the tip of its Tenasserim "panhandle" on the Malay Peninsula in the south, Burma suggests the outline of a diamond-shaped kite with a dangling tail. It is a fifth again as large as France (about 260,000 square miles), yet has only one-third as many inhabitants.

Five mountain systems, pouring the country's four chief rivers southward in parallel valley troughs, dominate Burma's history and geography. They block east-west travel, isolate the nation from friendly contacts with neighbors except by sea. Moreover, these valley corridors invite piece-by-piece invasion of the country; mountain Mongols from the north have repeatedly accepted the invitation.

The mountains rip the storm clouds of southwest monsoons and release a tropical abundance of rain on the windward slopes. Rice, that can grow knee-deep in water, is the chief crop. Its low population density and high rainfall make Burma one of the Orient's three big rice-exporting countries. Three-fourths of its rice acreage lies in the Irrawaddy's broad tropical delta, west of Rangoon.

Fire-Rafts Started Oil Export

Ports are the only large cities: Rangoon, near the Rangoon River's mouth, normally handling 86 per cent of Burma's foreign trade, has 350,000 inhabitants; Mandalay, up the Irrawaddy, 147,000; and Moulmein, on the Salween, 65,000.

In 1825 the Burmese attacked British ships at Rangoon with fire-rafts—jars of burning oil and cotton on rafts. By 1889 the British were recovering petroleum from machine-drilled oil wells near Mandalay, and floating the oil in jars on rafts down the Irrawaddy to Rangoon for export. Now a pipe line to Rangoon taps Burmese wells that rival Trinidad's as chief oil producers in the British Empire.

The mountainous eastern plateau of the Shan States has wolfram deposits



Alfred Schatzle

BLEAK CHILEAN HEIGHTS OF THE ANDES, WHERE COPPER IS MINED, CAST SHADOWS ON PRIORITIES LISTS

Because brass is 70 per cent copper, and big gun shells and battlehips need brass, the war has multiplied many times the normal demand for copper. In 1941, the estimated production in the U. S. of 950,000 short tons was not expected to supply more than half the country's needs; the difference is having to be made up by economies, priorities to assure most economical use, and imports. Copper is an outstanding "Good Neighbor" item of commerce, because five-sixths of the imports normally come from South America, and much of the other sixth from Mexico and Canada. Chile, the leading Latin American exporter, has a remarkably productive mine at Sewell in the Andes, two miles above sea level. At one time it sent 7,000 tons of copper a month to the U. S. Cuba, Peru, and Argentina are other Latin American suppliers. More distant sources have been Turkey and Yugoslavia, Australia and South Africa (Bulletin No. 2).

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The Priorities That Geography Built

THE shopkeeper's "Yes, we have no asbestos; priorities, you know," has been varied through the alphabet from aluminum to zinc. "Priorities" has come to be a synonym for scarcity to the civilian shopper. Why?

Priority orders issued by the U. S. Government are giving defense needs the right of way over the needs of ordinary citizens for several hundred items and materials in special demand because of the war. Some materials, such as cotton, are bountifully produced by the United States in quantities adequate for peace needs, but hardly plentiful enough for the special strain of wartime demands.

Burlap and kapok, aluminum, iridium, and zinc, however, are typical of the materials, found only to a limited extent or not at all in the United States, which come from foreign countries where invasion or shipping hazards menace the supply.

Aluminum soars high on priority lists, because in this air war each fighting plane requires from 5,500 pounds to 20,000 pounds of the light metal. The U. S. brings more than half of its needed ores from British Guiana and Surinam on the northeast coast of South America. Aluminum, therefore, was the first material to be made subject to priorities (on March 21, 1941), in an effort to keep it off cookstoves and get it into the air.

Farewell to Bristles and Burlap from Asia

Asbestos, the "wool from rocks," that resists flame and heat without being consumed, has special war jobs for firefighters' gloves and suits, and insulation for turbines, boilers, and pipes. Canada is the chief foreign source, with South Africa, Australia, and the U. S. S. R. supplying smaller quantities.

The bristle familiar in brushes of all sizes, from tooth to paint or scrub brush, and brushes in machinery, rates a priority order because the United States looks to China and Asiatic Russia for the best bristles, obtained from the backs of half-wild hogs. Those countries produce the longest hog bristles because the hogs are slaughtered older there than in the United States.

Coarse, harsh burlap was regarded with no special respect five years ago, before sandbags were needed. But the Army has already ordered enough burlap, along with its coarse counterpart woven of cotton, called Osnaburg, to reach eight times around the earth. All the jute of which burlap is made comes from India, except for tiny quantities occasionally shipped by China or the Netherlands Indies. American imports of unmanufactured jute alone in a peaceful year amounted to a \$3,000,000 purchase from India. In addition to sandbags, burlap must be found for sacking sugar, wool, and other farm products.

Outstanding on the C-sector of the priorities list are copper (illustration, inside cover), cork (illustration, next page), chromium for hardening steel armor plate, formerly from Turkey, Africa, and the Philippines and New Caledonia; cadmium, once from Belgium, for electroplating and rustproofing plane parts; and cobalt, normally from Finland, France, and Canada, to harden steel for tools.

Since 98 per cent of the rubber used by the United States came from Far

This BULLETIN supplies pertinent information for use in developing Unit I (IV, D, 1. Priorities—in materials, in air travel, etc.), in the U. S. Office of Education handbook, "What the War Means to Us."

which from 1912-16 were the world's foremost source of tungsten. The Bawdwin mine near by is one of the outstanding silver-lead-zinc deposits yet known. The fabled ruby mines of the same region are now of less consequence than the tin works of Tenasserim to the south. One of Burma's four leading exports is teak.

Among the curious people of the mountains are the nature-worshipping Chins, the ex-head-hunting Palaungs and Was, and the Shans. Men of the latter tribe are tattooed to ward off disease. The women wear short blue cotton skirts, with string-tied cotton leggings as protection against leeches. Children spin cotton, carrying baskets of it with them as American girls carry their knitting bags.

Some 900 years ago Burma was an empire with a magnificent capital at Pagān, now a ruin with 5,000 impressive pagodas, but then an Asiatic metropolis outshining medieval Paris. Its peacock emblem was used on coins as recently as Thebaw's brief reign, and still appears on the Burmese flag. The peacock empire of Pagān was great enough to challenge China, so that Kublai Khan (with Marco Polo as European war correspondent) attacked in 1254, bringing about its downfall. The Burmese ruler of that time was poisoned by his son. The last king, deposed by the British in 1885-6, took precautions against such an end by murdering his potential murderers, more than a hundred of his male relatives.

Note: For further information on Burma, see the following articles in the *National Geographic Magazine*: "Burma Road, Back Door to China," November, 1940; "Five Thousand Temples of Pagān," October, 1931; "Working Teak in the Burma Forests," August, 1930.

Burma appears on the National Geographic Society's Map of the Theater of War in the Pacific. A price list of maps may be had from the Society's headquarters in Washington, D. C.

Bulletin No. 1, March 23, 1942.



A. W. Smith

KIPLING SAW "ELEPHINTS A-PILIN' TEAK IN THE SLUDGY, SQUIDGY CREEK"

A tall, sturdy teak giant is "girdled" (the sap layers chopped through all around) and allowed to dry three years standing in the forest before it is cut, so that it will float. When felled, it is dragged by elephants to a muddy, half-dry creek bed. The monsoon season's rains raise the creeks, and the logs float down to Rangoon. When the waters recede, workmen in a splinter-narrow Burmese canoe search for stranded logs, which elephants then push into the deeper water and start downstream. The elephant, costing little more than an automobile (from \$500 to \$3,000), starts "schooling" for forest work at the age of 14, goes to work at 18, and is mature at 25; his working life averages around 50 years.

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Belgian Congo Riches on United Nations' Side

THE recently instituted Belgian air line from the Belgian Congo to Cape Town, South Africa, forges a new link between the warring world and this rich, extensive Belgian colony of south central Africa.

In spite of the Axis overlordship of Belgium, the Congo colony remains aligned with the United Nations. Under the Belgian Council of Ministers, the Belgian prime minister, Hubert Pierlot, rules from London an African empire 18 times the size of New York State, 76 times the size of Belgium.

Numbers of Congo natives are fighting in Africa with the British against Axis forces; but of possibly greater importance is the enlistment of the natural resources of the colony.

Diamonds in War Work

Spreading like a fan from the Atlantic deep into the heart of the "Dark Continent," the Belgian Congo is a treasure heap of riches only slightly tapped. Ivory and rubber were once the leading exports; piles of tusks may still be seen on the docks at Matadi, the Atlantic port at the Congo River's mouth, and rubber is still being produced.

But now the colony is becoming important to the United Nations, with their racing, war-gearred industries, because it is the world's foremost producer of industrial diamonds.

Hundreds of thousands of diamonds from the Congo mines are already engaged in war industries, where they aid immeasurably in aircraft, tank, and munitions production. They put sharp cutting edges on hard steel tools. They dress down enemy wheels clogged with minute bits of metal. They draw copper wire, even to the fineness of human hair. Some 64 per cent of the world's industrial diamonds come from the Belgian Congo, 8,000,000 carats in the last peace year.

Cancer patients around the world in many cases owe their lives to the colony's resources of radium.

Copper is another war mineral from the Congo, whose mines turn out as much as 200,000 tons in a year. The colony also produces about 10,000 tons of tin ore each year. From the Congo come thousands of tons of manganese and lead ores, in addition to gold, platinum, cobalt, and silver. The colony's farms, forests, and plantations yield rubber, cotton, sugar, and palm oil.

Was Unexplored 70 Years Ago

Chocolate, which contributed to the soldiers' energy in the World War, also comes from the Congo. The textile mills of the Congo capital, Leopoldville, are turning out quantities of cloth for army uniforms.

Trade with the U. S. increased considerably in 1940 in spite of a shortage of shipping. Tin, diamonds, palm oil, beeswax, ivory, and coffee are among the products normally sold to Uncle Sam.

The Congo has a native population of more than 10,000,000, with a white population of 25,000. Among these are about 600 Americans and representatives of about 18 European nations, including some 1,600 Belgians.

Adjoining the Belgian Congo on the east are the Belgian mandated territories of Ruanda and Urundi. These former German East Africa colonies have an area somewhat smaller than that of West Virginia, with an estimated native population of 3,350,000.

Bulletin No. 3, March 23, 1942 (over).

Eastern tropics now occupied for the most part by the Japanese, the supply on hand is being routed by priority orders away from tennis balls and toy balloons and into tires and treads for airplanes and tanks, specially cushioned footwear for parachutists, broad belts to turn machinery, tires for jeeps. A year ago 72 per cent of the rubber made tires; civilian savings here leave more for fighters.

Silky kapok fiber, ordinarily obtained chiefly from the Netherlands Indies, is also under priority ratings because of its importance in life-preservers.

"No more iridium for jewelry," says a priority ban that conserves this precious metal for hardening platinum to make airplane magneto points, as well as instruments for other war machines. It is brought from Colombia, Canada, and Alaska.

Excepting a small fraction from California, agar has come to the U. S. from Japan, China, and Java, where the jelly-like substance was extracted from seaweed. Doctors and scientists use it as a medium in which to grow germs and bacteria for studies that safeguard health. A priority order restricts its use in ice cream, candy, laxatives, and making false teeth.

A fifth of the nation's normal supply of zinc depends on ores imported from Latin America (Peru, Chile, and Mexico mostly). The Army needs the metal for coating "galvanized" tin and steel A. E. F. huts or for die castings in trucks, for example. The Navy needs it for ship propellers and steam boilers. The brass for gun shells is 30 per cent zinc. Priority orders see that these needs are met before civilians stock up on brass andirons and doorknobs or galvanized milk pails.

Note: Information on some materials essential to war production is contained in the series of GEOGRAPHIC SCHOOL BULLETINS on Strategic Materials beginning March 31, 1941.

Bulletin No. 2, March 23, 1942.



De Cou from Galloway

SEAGOING CORK COMES EXCLUSIVELY FROM THE MEDITERRANEAN SEA RIM

War enlists cork to serve in some types of Army pontoon bridges, Navy mosquito-type torpedo boats, Air Corps self-sealing gas tanks, linoleum for battleships, and life-preservers for all armed forces while afloat. The normal civilian uses—insulation, linoleum, and bottle stoppers—must give way to these military needs. There is not enough to serve all purposes because cork comes from the bark of evergreen cork oaks that so far refuse to thrive except within reach of the Mediterranean's climate, in areas where the war hampers both collection and shipping. Portugal ordinarily produces more than a third of the world output, Spain just less than a third, and Algeria about one-sixth. This wagonload of baled sheets of bark, massive but lightweight, was photographed on the way to the docks of Seville, Spain, before the war. Other countries which once sent peacetime supplies to the U. S. are Morocco, Italy, and France. Cork-like trees of Brazil, such as the Pau Santo, are offering substitutes.

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French Islands of the Pacific

FRENCH islands of the Pacific taken over by the Free French in the past year and a half are now to be protected by the United States, according to a State Department announcement. These bits of France-at-sea are scattered thinly over a vast triangle of the South Pacific which measures 4,000 miles from east to west and 1,400 miles from north to south.

The largest of the French islands is New Caledonia which, with its dependencies, has an area in excess of 8,500 square miles and a population of 53,000. Lying 750 miles from the mainland of Australia, east of the north part of the continent, New Caledonia is 240 miles long with an average width of some thirty miles. It is near the southwestern end of the important U. S. sea lane to Australia.

New Caledonia Has Island Dependencies

French spots in Oceania also include the New Hebrides, the Iles Marquises, the Tuamotu group (illustration, next page), Leeward and Gambier Islands, Rapa, and others scattered over the Eastern Pacific, with a total area of some 1,500 square miles and a population of less than 50,000. In all, about 110 islands comprise French Oceania.

In addition to New Caledonia's outstanding importance by reason of its location, the island has great and varied mineral wealth, including nickel, chromium, cobalt, antimony, and copper. Noumea, New Caledonia's capital, on the southern tip of the island, is a city of over 11,000 inhabitants. It is the seat of government also for the New Caledonian dependencies—the Isle of Pines, several islands of the Loyalty group, the barren Huon Islands, the Wallis Archipelago, and Fortuna and Alofi Islands, northeast of Fiji.

The New Hebrides, just northeast of New Caledonia, were long jointly administered by Great Britain and the French Republic; now they are under Britain and the Free French. In 1936 the foreign population of the islands included but 750 French and 178 English.

Tahiti Thrives on Coconuts

Best known of France's Pacific islands is romantic Tahiti, long known as a paradise of the Pacific. It is the principal island of the Society group. It lies due south of Seward, Alaska, but the nearest point in the Americas is the tip of Lower California, almost 4,000 miles distant.

The island is formed by two ranges of mountains of volcanic origin, the highest rising over 7,000 feet above the sea and visible 80 or 90 miles on a clear day. These two mountain clusters give to the island's 600 square miles the form of a figure eight.

Although there are important pearl fisheries, the principal industry of the island is the growing of coconuts, from which about 25,000 tons of copra a year is exported in normal times, mostly to France. This dried meat of the coconut produces oil for making margarine and soap, as well as glycerine to be used in munitions. From 3,000 to 4,500 coconuts produce a ton of copra.

In addition to being a source of revenue, the coconut supplies the natives with a very popular drink. The jelly-like substance within the immature nut is fed to children. The leaves roof the native huts; the leaf midribs do duty as brooms. The timber of old coconut trees is durable and hard, taking a fine polish. And,

Belgium's King Leopold II took the first steps to bring the African territory to its present status when he called a geographic congress in 1876 to organize exploration of the Congo under Sir Henry Stanley. A decade later, the region had been declared a distinct African nation with Leopold as its sovereign. It was named the Congo Free State. This status lasted until 1908, when it became the Belgian Congo colony.

Two big game preserves, Parc Albert and Parc Leopold, are sanctuaries for zebras, elephants, giraffes, hippopotamuses, rhinoceroses, antelopes, and other wild beasts, which may be viewed there in their natural habitats.

The mighty Congo River, over 3,000 miles long, is navigable for about half its route through the country. Freight moves up and down the river, making detours by rail around the Stanley Falls and rapids.

Railroads of the colony would reach from east to west across the U. S. Air lines, if linked together, would extend from New York to Denver; and roads, if stretched in one straight ribbon, would miss twice circling the earth at the Equator only by 6,000 miles.

Note: For further information on the Belgian Congo, see the following articles in the *National Geographic Magazine*: "We Keep House on an Active Volcano," October, 1939; "Keeping House on the Congo," November, 1937; and "Trans-Africa Safari," September, 1938.

The Belgian Congo may be located on the National Geographic Society's Map of Africa. A price list of maps may be obtained from the Society's headquarters in Washington, D. C.

See also the following *GEOGRAPHIC SCHOOL BULLETINS*: "U. S.-to-Leopoldville Air Line Reaches Heart of African Plane Network," January 5, 1942; and "Albert National Park, Paradise for the Naturalist," November 21, 1938.

Bulletin No. 3, March 23, 1942.



G. Michel

WAR PRIORITIES CAUSE NO CONCERN TO THE CONGO HOUSEWIFE

Lack of aluminum, tin, or iron for pots, pans, and pails, is no inconvenience to this housewife of the Lake Kivu region in the Belgian Congo. Dressed for work in a printed cotton sarong, with bracelets on arms and legs (her hair neatly shaved in the height of local fashion), she sits on a stone before the pillared portico of her mud-and-wattle house and molds a new water jug. Using an old one as a base and pattern, over the rounded surface she shapes a thin sheet of clay. After this is dried in the sun and baked, it will join the varied collection in the corner of the dooryard and make itself useful in such domestic services as bringing water from the spring. In the Congo pottery making is woman's work, exclusively.

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Geo-Graphic Brevities

WAR ACTIVITY IN SIMLA, INDIA'S HILLTOP SUMMER CAPITAL

ALL IS business—war business—these days in Simla, hill-country summer capital of India from March to October, and permanent Army Headquarters.

When the thermometer soars in Delhi, the winter capital down on the Punjab plains, it induces a state of mental fatigue known as "Punjab head." So in late March or early April, the governments of both India and the Punjab pack up and climb the twisting road or the narrow-gauge railroad to Simla, 6,500 to 8,000 feet high in the southern foothills of the central Himalayas.

Rudyard Kipling made Simla the setting for many of his stories and poems. The character of the famous hill station as he revealed it—a bit of England mixed with mysterious India—is little changed today.

To come to Simla in the spring from the scorching heat of the plains is to enter another world—a world of cool light air, of oaks, pines, and deodars, of gorgeous crimson rhododendrons and yellow primroses; a world where troops of monkeys swing from tree to tree, where terrace upon terrace of cottages "clinging like barnacles to the hilltops" look down on deep valleys and up to eternal snows.

The winter population of Simla is about 20,000; in "the season" the number rises to 70,000. Most of the natives—Hindus and Dravidians, hillmen of Kashmir and Mongols from Tibet—live in the bazaar district. The blocks of Indian Government offices, the shops, churches, and clubs of the Anglo-Indians border the bazaar section, mostly to north and west.

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JAPANESE ATTACKED ONLY SULTANATE UNDER U. S. FLAG

A 300-PIECE geographic jigsaw puzzle about the size of Rhode Island would give some idea of the islands of the Sulu Archipelago, which Japanese troops have attacked along with the rest of the Philippines.

Spaniards called the natives of the islands Moros, Spanish for Moors, because of their Moslem faith. The tribesmen had become Mohammedans before Spain discovered them.

Generals Wood and Pershing, as governors, learned that Moros, both men and women, were no mean warriors, and carried no white flags. When in 1911 U. S. forces ordered the surrender of Moro firearms, a museum collection of antiquities was turned in; but modern weapons were kept and hidden.

The turbaned warriors long harassed shipping in waters of the Philippines and Netherlands Indies. The Moro pirates sailed in elaborately carved wooden craft, wielding their favorite weapon, the kris, a long, serpentine, two-edged dagger.

When the U. S. first took over the Philippines, the Sultan of Sulu, the native ruler, was permitted to continue his reign. But after 1915 he was recognized only as the Sulu head of the Mohammedan Church. In April, 1940, his successor, the Princess Hadji Piandao, signed over legal ownership of the archipelago to the Commonwealth of the Philippines, ending a sultanate 600 years old.

Nearly all the islands are inhabited. Many of the natives' thatched huts stand high on stilts, since much of the land is marshy, and often infested with crocodiles. The marshland is widely used for rice fields, where whole families work. Rice, fish, and fruit are staples of Sulu diet. Rubber trees, coconut palms, and sugar cane thrive there.

Bulletin No. 5, March 23, 1942 (over).

surprisingly, the electric light and power of Papeete, Tahiti's city, is produced largely by burning coconut husks for fuel.

About 75 years ago a number of Chinese were brought to Tahiti to work the plantations. After their indentures expired they remained, many acquiring wealth, land, and much of the retail business of the island. They married native women and now their descendants constitute about 3,000 of Tahiti's 16,000 inhabitants. Of the rest, 5,000 are French and about 8,000 native Polynesians. Americans, British and other Europeans total about 500. The whites mix rather freely with the Polynesians socially, but the Chinese have their own social circle.

Papeete, on the island's best harbor, is Tahiti's only town. Its 6,000 inhabitants include the French government officials. The world economic depression touched Papeete in spite of its isolation. The vanilla bean, of which Tahiti has exported vast quantities, must now compete with synthetic vanilla. Substitutes used in the outside world in making pearl buttons and knife handles have cut the export of oyster shells, an important by-product of the pearl oyster industry.

Note: The French islands of the Pacific may be found on the Society's Map of the Theater of War in the Pacific. A price list of maps may be obtained from the Society's headquarters in Washington, D. C.

Bulletin No. 4, March 23, 1942.



Rollo H. Beck

A COCONUT IS CASH IN HAND, IF YOU CAN OPEN IT

He has his hands on food, drink, a steady job, and some spare change. The school-age boy of Apataki Island, in the Tuamotu group, like the other French subjects in South Sea Islands, soon learns how to seek coconut treasure and how to "crack the safe" after he finds it. Impaling it on a stake buried in the sand, he can split off the thick outer husk, make a hole in the coconut and drink the milk, then break the shell and eat the meat. Any leftover meat can be dried into copra and sold for export. It is not unusual for children of this age to work steadily at a copra job.

Jolo, capital and principal port, was early developed by the Spaniards as the archipelago's one European city, on the island of Sulu, about 600 miles from Manila. It is the center of a rich pearl-fishing industry.

* * * * *

FRANCE'S CAPTIVE CAPITAL, VICHY

THE place that supplanted Paris as a fountainhead for French policy is Vichy, the famous health resort formerly known internationally for its connection with bottled mineral water. France's new center is headquarters for the authorities who have made partial peace with German invaders, in contrast to Free French forces still carrying on the war.

Vichy is situated near the middle of France, on the right bank of the broad, shallow Allier River, 190 miles south of Paris.

The Vichy mineral springs were discovered by the Romans, who built a main highway through this region; but the spa became renowned only after Louis XIII built a bathing pavilion there. The town boomed under Louis XIV.

Napoleon III, who had a villa at Vichy, leased the springs to a private company on condition that they lay out parks and build a casino, theater, and adequate bathing establishments. The resort now has over 160 hotels and rooming houses. The more important springs are owned by the government.

The town's population of less than 20,000 used to jump beyond 75,000 during the summer. The social center of Vichy was the Casino, which houses the gaming tables, theater, and restaurant.

The principal industries at Vichy are the result of its development as a watering resort. The bottle factory, with American-made machinery, has filled 200,000 bottles a day with the famous Vichy water, of which 2,500,000 gallons were exported each year. Millions of labels in various languages were printed locally.

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Aleko E. Lilius

SULU SEA GYPSIES LIVE ON THE WATER AND EARN THEIR LIVING IN IT

Around the marshy margins of the islands in the Sulu Archipelago of the Philippines, near Borneo, the "sea gypsy" tribesmen known as the Bajaos build their houses on stilts over the water or live entirely in primitive houseboats. Sitanku Island is a center for these sea-going Sulus. Their *vintas*, or canoes, are made from a single long log and equipped with outriggers and sail. For full dress, these Moslem Americans wear big turbans, shirts, and tights, with a silk scarf dangling over the left shoulder; for work, they wear less. With a two-pronged spear and sometimes goggles, the Bajao fisherman swims under water and spears his catch one at a time. He also dives for pearls. The young Bajao boy learns to kill sharks with a short knife for sport, as nonchalantly as sportsmen elsewhere go shooting.

